patent in view of the Kruckeberg '538 patent in further view of the Eheim U.S. Patent No. 3,635,594.

By the present amendment, the applicants have amended independent claims 26 and 32. Based upon these claim amendments, as well as the arguments for allowance presented below, it is the applicants belief that the application is now in condition for allowance.

Claims 26-31

Claim 26 has been written to more particularly point out and distinctly claim the patentable aspects of the present invention. Specifically, claim 26 has been amended to indicate that the mounting bracket includes a sleeve housing for receiving the bearing assembly mounted to the rotor and providing further clarification as to the flow of cooling air along the length of the motor assembly from the first end of the main housing to the open second end of the main housing. The flow of cooling air creates a curtain of air over the motor assembly that enters into the main housing through a plurality of vents positioned near the first end of the main housing. The method described by independent claim 26 is directed to a method of cooling and enclosing a C-frame motor that allows a flow of air to cool the motor assembly by directing a curtain of air over the motor assembly.

As required by claim 26, rotation of the impeller draws the flow of cooling air through the vents in the main housing. The combination of the mounting bracket and the end plate formed on the main housing support the motor assembly within the main housing such that the axial flow of cooling air is not impeded by any point of contact between the motor assembly and the main housing. Thus, a smooth curtain of air is drawn axially over the motor assembly from the first end of the main housing to the second end of the main housing.

In rejecting claim 26, the Examiner has again cited the Zimmermann '196 reference. The Zimmermann '196 reference discloses a housing for a partially submerged pump. The housing of the pump is partially submerged in the fluid being pumped and includes openings 62 positioned around the outer circumference of a cover 60. The openings 62 allow air to be forced outwardly between the cover 60 and the sidewall 23 through the openings 62. The mounting of the motor within the

housing in the Zimmermann '196 reference clearly does not allow a flow of air to pass axially along the length of the motor assembly. Instead, the same openings 62 are used in the Zimmermann '196 reference to allow cooling air to flow into the housing and out of the housing from within the motor chamber.

As clearly required by claim 26, the main housing extends between a first end and an open second end such that rotation of the impeller draws a flow of cooling air through the vents in the main housing, along the length of the motor assembly from the first end to the second end, and out through the open second end. This axial flow of cooling air creates a curtain of air over the entire motor assembly to provide efficient cooling of the motor assembly. By creating such an axial flow of air for enhanced cooling, the main housing allows for a shorter motor lamination stack because the motor cools more efficiently within the main housing as compared to other prior art systems.

The Kruckeberg '538 reference cited by the Examiner is an automotive fuel pump that is, by definition, liquid cooled. The pump motor is contained within an enclosed casing that must be sealed to contain the flow of liquid through the pump housing.

As discussed above, the method of claim 16 is directed to a method of cooling the motor assembly within a main housing by directing a flow of air over the motor assembly along the length of the motor assembly from a first end of a motor housing to the second end of a motor housing. The Kruckeberg '538 patent clearly does not contemplate such a situation. Instead, the Kruckeberg '538 reference is directed to a fluid pump in which the flow of the fluid being pumped passes over the motor assembly and out of an outlet. Thus, there would be no reason to combine the Kruckeberg '538 reference with the Zimmermann '196 reference as suggested by the Examiner.

Further, the Kruckeberg '538 reference does not teach or suggest a mounting bracket that is supported within the open second end of the main housing. This suspended position of the mounting bracket allows for the flow of air through the entire length of the housing. Clearly, this is not taught or suggested by the Kruckeberg '538 reference.

Based upon the amendments made to the claims, as well as the above arguments, independent claim 26 is believed to be allowable.

Claims 27-31 depend directly or indirectly from claim 26 and are thus believed to be allowable for the above reasons, as well as in view of the subject matter of each claim.

Claims 32-39

In the Office Action, claim 32 was rejected based upon the combination of the Zimmermann '196 patent with the Kruckeberg '538 reference. By the present amendment, claim 32 has been amended generally along the lines of claim 26 to more specifically define the invention. Specifically, claim 32 has been amended to indicate that the mounting bracket is supported within the open second end of the main housing such that a flow of cooling air can be directed along the main housing from the first end to the second end. Further, claim 32 has been amended to indicate that the mounting bracket includes a sleeve housing for receiving a bearing assembly mounted to the rotor to rotatably support the rotor shaft.

As discussed above in the arguments for allowance of claim 26, neither the Zimmermann '196 or Kruckeberg '538 patents teach or suggest, nor render obvious, the mounting arrangement of the mounting bracket and the close conformance between the main housing outer wall and the motor assembly to create the flow of air as required by claim 32. Specifically, both the Kruckeberg '538 reference and the Zimmermann '196 reference are specifically designed to prevent the flow of air through one end of the housing. Therefore, neither of these two references teach or suggest the subject matter of claim 32.

Dependent claims 34-39 depend directly or indirectly from claim 32 and are thus believed to be allowable for the above reasons, as well as in view of the subject matter of each claim.

Conclusion

By the present amendment, the applicants' attorney has made every effort to place claims 26-32 and 34-39 in a form that is believed to be allowable over

the references cited by the Examiner. Thus, applicants' attorney hereby requests the passage of the application to allowance.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Marked-Up Version ".

The Examiner is invited to contact applicants' undersigned attorney with any suggestions or comments, or to otherwise facilitate prosecution.

Respectfully submitted,

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MARKED-UP VERSION

Serial No. 09/426,380

26. (Twice amended)A method of enclosing a C-frame motor having a motor assembly including a stator, a rotor rotatable within the stator and at least one bobbin having electrical conductor windings situated thereon, the method comprising the steps of:

providing a mounting bracket having a pair of mounting posts positionable in contact with the motor assembly and a sleeve housing for receiving a bearing assembly mounted to the rotor;

providing a main housing having a first end, an open second end and an outer wall configured to closely conform to the shape of the motor assembly, the main housing including an end plate having a pair of columns projecting axially from the end plate, the columns being positionable in contact with the stator and adapted to attach to the mounting bracket, wherein the main housing includes a plurality of vents;

positioning the mounting bracket and the motor assembly within the main housing through the open second end of the main housing;

securing the end plate of the main housing to the mounting bracket such that the motor assembly is supported within the main housing free from contact with the outer wall of the main housing and the mounting bracket is supported within the open second end of the main housing;

providing at least one impeller rotatable with the rotor;

providing an end cap attachable to the main housing for encompassing the impeller; and

operating the motor such that rotation of the rotor causes the impeller to rotate to draw a flow of cooling air through the vents in the main housing and along a length of the motor assembly from the first end of the motor housing to the second end of the motor housing, wherein the close spacing between the outer wall of the main housing and the motor assembly directs a curtain of air over the motor assembly to cool the motor assembly.

32. (Thrice amended)A C-frame motor comprising:

a stator having a plurality of electrically conductive laminations, wherein the laminations have portions which define rotor apertures and portions which define radially extended projections;

a rotor having a plurality of laminations and sized to be rotatably received within the rotor apertures of the stator laminations, the rotor being rotatably mounted to a rotor shaft;

at least one bobbin having a plurality of coils comprising at least one wound electrical conductor wherein the bobbin is attached to the radially extended projections of the stator;

a mounting bracket including a pair of mounting posts positionable in contact with the stator, wherein the mounting bracket includes a sleeve housing for receiving a bearing assembly mounted to the rotor to rotatably supports the rotor shaft;

a main housing having a first end, an open second end, and an outer wall configured to closely conform to and encompass the stator, the rotor and the bobbin, the main housing including an end plate having a pair of columns projecting axially from the end plate, the columns being in contact with the stator and attachable to the mounting bracket to support the mounting bracket within the open second end of the main housing and to support the stator, the rotor and the bobbin within the main housing free from contact with the outer wall, the main housing having a plurality of vent slots formed in the first end;

an impeller mounted to the rotor shaft for rotation with the rotor, wherein rotation of the impeller draws a flow of cooling air in through the vent slots in the main housing and along the length of the motor assembly and out of the second end of the main housing, wherein the close spacing between the main housing and the motor creates a curtain of cooling air that flows axially over the stator, the rotor and the bobbin to cool the motor; and

an end cap attachable to the main housing and configured to encompass the impeller.